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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,861	11/05/2001	Michael Persson	ANO 6129 PIUS/3159	6497

7590

06/02/2005

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EXAMINER

METZMAIER, DANIEL S

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/007,861

Applicant(s)

PERSSON ET AL.

Examiner

Daniel S. Metzmaier

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/13/04 & 3/14/05.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 26-65 is/are pending in the application.
4a) Of the above claim(s) 36-42, 54-60, 64 and 65 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1, 26-35, 43-53 and 61-63 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Claims 1 and 26-65 are pending.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 13, 2004 has been entered.

Election/Restrictions

2. This application contains claims 36-42, 54-60, and 64-65 drawn to an invention nonelected with traverse in Paper filed October 6, 2003.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 26-35, 43-53 and 61-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johansson et al, US 5,447,604¹, optionally in view of Brekau et al, US 5,458,812, Vossos, US 3,714,064, Chilton, US 3,560,400, and Mindick, 3,502,593. See column 2, line 3 to column 3, line 12, and examples. Johansson et al '604 discloses the claimed process, where Johansson et al '604 (column 2, lines 56-57) teaches "The obtained sol will hereby normally get a pH value above 10.5. This is a clear disclosure of the formation of sols alkalized to applicants' alkalizing step of a pH of at least 10. The alkalizing step, particle growth and the alkalizing step of the obtained sol read on the same alkalizing step since the claim fails to define which "obtained sol" the alkalizing step (d) refers or how the alkalizing steps differ. Said second alkalizing step reads on alkalizing the alkalized sol immediately upon reaching a pH of at least 7. Johansson et al '604 (column 3, lines 3-9) discloses particle growth occurs after alkalization for about a week and the sols are stable for months. A week of growth reads on at least 10 minutes claimed.

The amended claims read on pouring or pumping the alkalizing agent into the acid sol since the act of pouring results in a progression to a pH of at least 7 necessarily followed by a pH of greater than 10.0 by the continued addition. The steps are different based on the pH achieved. The claim amendment sets forth a first alkalizing step to

¹ Patent Family member to WO 91/7351.

form an alkalized sol to a pH of at least 7. The second alkalizing step of the obtained sol to a pH of at least 10.0. Applicants' claims do not define the obtained sol nor do the claims define the steps as sequential. Particle growth would have been expected to occur upon the addition of the alkalizing agent in the first alkalizing step.

Example 1 discloses the use of a higher concentration sodium silicate than the acid sol formed in step (a). The addition of the sodium silicate to the acid sol reads on concentrating. The addition of sodium silicate after the pH is anywhere above 7 reads on concentrating the alkalized sol obtained according to step (b).

To the extent the Johansson et al '414 reference differs from claims 26-28, 44-46 and 61-63 in the concentrating the silica sols during or following the processing steps, Brekau et al, Vossos, Chilton, and Mindick disclose making silica sols and concentrating said sols by various methods for the advantages of reducing storage and shipping cost.

Furthermore, Vossos (columns 1 and 2, see also column 2, lines 61-62) teaches stable sols with a pH of 9 to 11 and surface areas in excess of 600 m²/g. Chilton (column 3, lines 8-10) teaches the sols are have a silica soda ratio before or after concentration to correspond to a pH of 9-11. Brekau et al (column 4) teaches varying pH ranges up to 12, 11 and 10.5.

These references are combinable because they teach methods of making silica sols from acidic silicic acid and sodium silicate or metal hydroxide by particle growth. It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ a concentrating step after the alkalizing step in the Johansson et al '414 reference for the advantages of reducing storage and shipping cost.

Furthermore, It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to further alkalize the sols for stabilization within the art known pH ranges shown in the art.

Response to Arguments

6. Applicant's arguments filed Dec 13, 2004 have been fully considered but they are not persuasive.

7. Applicants (page 9) assert the claimed process enables the formation of sols having physical properties such as S-value, surface area, stability, and solids content but the method claims do not recite these properties.

8. Applicants (page 10) assert the Johansson et al '604 reference lacks a two alkalizing steps with a step of particle growth in between. This has not been deemed persuasive since the pH progresses from 1 to 4 in the Johansson '604 reference to greater than 7 followed to greater than 10.0, said claims read on mere pouring or pumping the alkalizing agent into the acid sol resulting first in a pH of at least 7 followed by a pH of at least 10.0. It would be impossible to modify the pH instantaneously. Stepwise addition of the known step of alkalizing is within the ordinary level of one having ordinary skill in the art at the time of the invention.

It is further noted that at a pH of 5-7, particle growth occurs and would be expected during the alkalizing step.

It is noted, claims are given their broadest reasonable interpretation during prosecution.


9. Applicant's remaining arguments with respect to claims 1, 26-35, 43-53 and 61-63 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Daniel S. Metzmaier
Primary Examiner
Art Unit 1712

DSM